

REMARKS

In the Office Action, the Examiner noted that claims 1-9, 12 and 14 are pending in the application and that claims 1-9, 12 and 14 stand rejected. None of the Applicant's claims are amended by this response.

In view of the following discussion, the Applicant respectfully submits that none of these claims now pending in the application are rendered obvious under the provisions of 35 U.S.C. § 103. Thus, the Applicant respectfully submits that all of these claims are now in allowable form.

Rejections

A. 35 U.S.C. § 103

The Examiner rejected the Applicant's claims 1-7, 9, 12 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Shimote et al. (U.S. Patent No. 5,212,677, hereinafter "Shimote") in view of Kagami et al. (U.S. Patent No. 5,212,677, hereinafter "Kagami"). The rejection is respectfully traversed.

The Applicant submits that Shimote and Kagami, alone or in any allowable combination, absolutely fail to teach, suggest or anticipate each and every element of the Applicant's invention as recited in at least the Applicant's claim 1.

More specifically, the Applicant submits that Shimote teaches an apparatus which inspects disc-shaped information recording media. The apparatus of Shimote detects the type of defect and classifies the defects into defect clusters by the defect position in the radial and circumferential directions. The Applicant submits, however, that, as conceded by the Examiner, Shimote does not disclose nor gives a hint to make a jump over the abnormal region **perpendicular** to the track direction. Such a feature of the Applicant's claimed invention has the advantage that a valid track is found soon without scanning the whole invalid tracks. Further, in case a track is mirrored, the track guidance often cannot be maintained and the track is lost during readout. Using a method according to the Applicant's invention, a jump is made perpendicular to the erroneous track until a valid track region is found and guidance on this track can be maintained.

The Applicant further submits that the teachings of Kagami absolutely fail to bridge the substantial gap between the teachings of Shimote and the invention of the Applicant. That is, the Applicant submits that Kagami teaches a method for counting

the number of tracks an optical head crosses during a seek operation in an optical disc drive to obtain positional information of the moving optical head. Kagami discloses two different seek operations, a high velocity seek operation (Fig. 4) and a low velocity seek operation (Fig. 15). At the beginning of the seek operation, the number of tracks from the seek start position to the target position is stored in the track counter. The stored value is decreased for each track that is crossed during the seek operation. Depending on the number of tracks which shall be passed during the seek operation, the seek velocity is determined according to the seek velocity profile disclosed in Fig. 3 (column 8, lines 36-43). Taking into account the technical teaching of Fig. 3, not only a low velocity seek operation and a high velocity seek operation are disclosed in Kagami, but also various seek velocities between the high seek velocity and the low seek velocity. Thus, Kagami teaches a method for performing a seek operation, for crossing multiple tracks and for jumping over a disk and finding as fast as possible a new disc position. In case of a defect portion according to Fig. 4 and 15 of Kagami, this method faces additional challenges. For these challenges, Kagami proposes a solution. As it is derivable from Fig. 4 and 15, the seek operation shown in the figures by the arrows is not finished when the end of the defect portion it is reached.

As such, the Applicant submits that Kagami does not disclose "making a jump perpendicular to the track direction over the abnormal region ... until a normal region is reached at the end of a jump" as taught and claimed by the Applicant. In contrast to the invention of the Applicant, the jump of Kagami is defined in advance by a number of tracks to be crossed according to the seek start position and the target position. The Applicant further submits that Kagami does not give a hint that information on the type of abnormal region can be obtained during the jump perpendicular to the track direction.

Therefore, the Applicant submits that a person skilled in the art would not combine the technical teaching disclosed by Kagami and the technical teaching disclosed by Shimote because no hint is given in Kagami that information on the type of abnormal region can be obtained during the jump perpendicular to the track direction and that the end of the abnormal region can be estimated during the jump. Even if a person skilled in the art would combine the technical teachings of Shimote and Kagami, this would not lead to the Applicant's invention as taught in the

Specification and claimed by at least the Applicant's independent claim 1 for at least the above mentioned reasons.

Therefore, the Applicant submits that, for at least the reasons recited above, the Applicant's claim 1 is not rendered obvious by Shimote and Kagami, alone or in any allowable combination. As such, the Applicant respectfully submits that the Applicant's claim 1 fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

Furthermore, dependent claims 2-7, 9, 12 and 14 depend either directly or indirectly from independent claim 1 and recite additional features therefor. As such and for at least the reasons set forth herein, the Applicant submits that dependent claims 2-7, 9, 12 and 14 are also not rendered obvious by the teachings of Shimote and Kagami, alone or in any allowable combination. Therefore the Applicant submits that dependent claims 2-7, 9, 12 and 14 also fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

B. 35 U.S.C. § 103

The Examiner rejected the Applicant's claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Shimote and Kagami as applied to claim 1 above and further in view of Mitarai (JP 54048213). The rejection is respectfully traversed.

The Examiner applied Shimote and Kagami to the Applicant's claim 8 as applied for the rejection of the Applicant's claim 1. As described above, Shimote and Kagami, alone or in any allowable combination, absolutely fail to teach, suggest or render obvious at least the Applicant's claim 1. As such, and at least because Shimote and Kagami fail to teach, suggest or render obvious the Applicant's claim 1, the Applicant further submits that Shimote and Kagami also fail to teach, suggest or render obvious the Applicant's claim 8, which depends directly from the Applicant's claim 1.

Even further, the Applicant submits that the teachings of Mitarai absolutely fail to bridge the substantial gap between the teachings of Shimote and Kagami and the Applicant's invention, at least with respect to the Applicant's claims 1 and 8. That is, the Applicant submits that Mitarai absolutely fails to teach, suggest or render obvious

at least a method for analyzing an abnormal region on an optical recording medium including "making a jump perpendicular to the track direction over the abnormal region ... until a normal region is reached at the end of a jump" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 1.

In contrast to the invention of the Applicant, Mitarai merely teaches storing the position and the radial extension of an abnormal region on an optical recording medium (i.e., stores the presence or not, quantity, length, position, etc. of the defect areas). However, as previously asserted, the Applicant submits that Mitarai absolutely fails to bridge the substantial gap between the teachings of Shimote and Kagami and the invention of the Applicant.

Therefore, the Applicant submits that for at least the reasons recited above the Applicant's independent claim 1 is not rendered obvious by the teachings of Shimote and Kagami and Mitarai, alone or in any allowable combination, and, as such, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder. As such and at least because the teachings of Shimote and Kagami and Mitarai, alone or in any allowable combination, fail to render obvious the invention of the Applicant's claim 1, the Applicant further submits that dependent claim 8, which depends directly from the Applicant's claim 1, is also not rendered obvious by the teachings of Shimote and Kagami and Mitarai, alone or in any allowable combination, and, as such, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

Conclusion

Thus the Applicant submits that none of the claims, presently in the application, are rendered obvious under the provisions of 35 U.S.C. § 103. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion, it is respectfully requested that the Examiner telephone the undersigned.

Please charge any unpaid, additional fees to Deposit Account No. 07-0832.

Respectfully submitted,
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